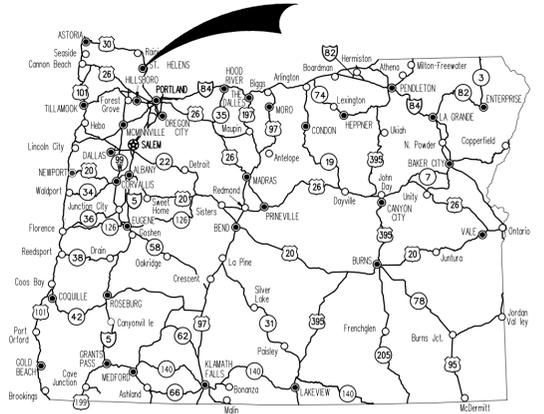


CITY OF ST. HELENS
 PLANS FOR PROPOSED PROJECT
 GRADING, DRAINAGE & PAVING
COLUMBIA BOULEVARD CULVERT
 COLMBIA BLVD. AT GABLE RD.

ST. HELENS, OREGON
 COLUMBIA COUNTY
 SEPTEMBER 2022



LET'S ALL
 WORK TOGETHER
 TO MAKE THIS
 JOB SAFE



S. 05, T. 04 N., R. 01 W., W.M.



PROJECT NO. R-679B

VERTICAL DATUM:
 ELEVATIONS ARE NAVD 88 BASED ON N.G.S. BENCH MARK PID #RD3969.

BASIS OF BEARINGS:
 THE BEARINGS ARE GRID BASED ON OREGON COORDINATE SYSTEM, PORTLAND, (NAD 83 2011 EPOCH).

LOCATES
(48 HOUR NOTICE PRIOR TO EXCAVATION)

OREGON LAW REQUIRES YOU TO FOLLOW THE RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES FROM THE CENTER BY CALLING (503) 232-1987



ONE CALL SYSTEM 1-800-332-2344

PUBLIC WORKS SUPERVISOR, DAVE ELDER (503) 397-3532, MUST BE NOTIFIED 48 HOURS IN ADVANCE TO COORDINATE ANY TAPS OR WATER VALVE OPERATION. THE CONTRACTOR IS NOT ALLOWED TO OPERATE ANY WATER VALVES CONTROLLING FLOW TO NEW PIPING FROM THE CITY'S POTABLE WATER SYSTEM

PLANS PREPARED FOR
 CITY OF ST. HELENS

DAVID EVANS AND ASSOCIATES, INC.
 5121 Skyline Village Loop S., Suite 200
 Salem, Oregon 97306 Ph: 503.361.8635

These plans were developed using AASHTO design standards. Exceptions to these standards, if any, have been submitted and approved by the City of St. Helens Public Works Director or their delegated authority.

PLANS PREPARED FOR
 CITY OF ST. HELENS

Paul Tappan 9-23-2022
 Signature & date

Paul Tappan, P.E. - Project Manager
 Print name and title

COLUMBIA BOULEVARD
 CULVERT
 SAINT HELENS, OREGON
 COLUMBIA COUNTY

COVER SHEET SHEET NO. A01

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
A01	COVER SHEET
A02	INDEX & TYPICAL SECTION
B01	DETAILS
B02	STORMWATER DETAILS
HA01	CULVERT
HA02	WATER QUALITY SWALE

ODOT Standard Dwg. Nos.

RD300	-Trench backfill, Bedding, Pipe Zone and Multiple Installations
RD335	-Standard Storm Sewer Manhole
RD336	-Standard Manhole Details
RD344	-Standard Manhole Base Section
RD345	-Pipe to Manhole Connections
RD356	-Manhole Covers and Frames
RD360	-Manhole Frame Adjustment
RD386	-Fill Height Table for Circular Concrete Pipe
RD388	-Fill Height Table for PVC Pipe
RD1030	-Sediment Barrier Type 2, 3 and 4
TM671	-3-Second Gust Wind Speed Map
TM681	-Perforated Steel Square Tube (PSST) Sign Support Installation
TM689	-Temporary PSST Vane Anchor Installation
TM800	-Tables, Abrupt Edge and PCMS detail
TM820	-Temporary Barricades
TM821	-Temporary Sign Supports
TM822	-Temporary Sign Supports
TM840	-Closure Details

EROSION AND SEDIMENT CONTROL GENERAL NOTES

- The construction, adjustment, maintenance, and upgrading of these Erosion and Sediment Control measures is the responsibility of the contractor for the duration of the project to comply with Section 00280 of the Oregon Standard Specifications for Construction.
- Erosion and Sediment Control measures shown on this plan are for anticipated site conditions. Adjust or upgrade these measures for unexpected storm events to ensure that sediment and sediment-laden water does not leave the site.
- Develop a revised plan of the Erosion and Sediment Control measures shown as required by Section 00280, Oregon Standard Specifications for Construction. Implement this plan for all clearing and grading activities and in segments applicable to each staging phase. Construct in such a manner so as to ensure that sediment and sediment-laden water does not enter the roadway or drainage system, or violate applicable water standards.
- Install measure within the right-of-way unless directed otherwise.
- Erosion control measures shown are limits of a "No-Work" zone in the protection zone and wetland areas. Work or site disturbance shall not occur outside erosion control limits.

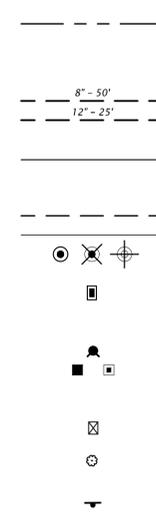
EXISTING



LEGEND

Easement line
Property line/Right-of-Way line
Communications line
Overhead power line
Gas line
Sanitary sewer line
Storm sewer line -or- culvert
Water line
Edge of pavement
Edge of gravel
Edge of concrete
Curb / Curb & gutter
Edge of sidewalk
Manhole (As noted*)
Water Manhole
Junction box (As noted*)
Utility pole
Guy anchor
Fire hydrant
Inlet
Communication riser
Water valve
Water meter
Tree/bush
Gas valve
Traffic sign

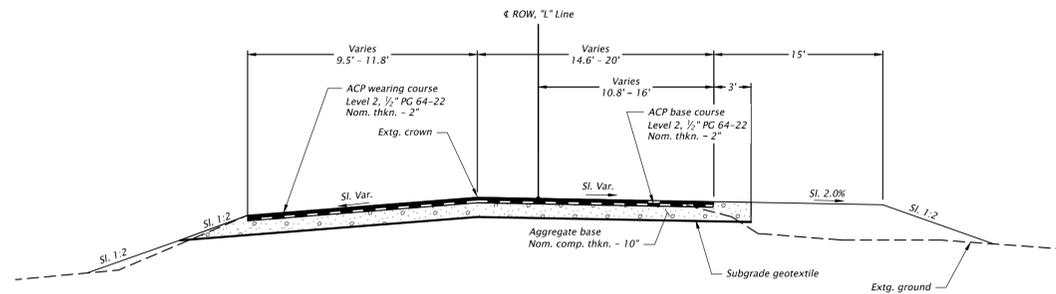
PROPOSED



*As noted:
C - Cable TV
D - Storm drain
E - Electric
G - Gas
Irr - Irrigation
S - Sanitary (manholes) -or- Signal (junction boxes)
T - Telephone
U - Unknown
W - Water

ABBREVIATIONS

AC	Acres
ACP	Asphalt concrete pavement
Approx.	Approximate
ASTM	American Society for Testing and Materials
CACP	Commercial Asphalt Concrete Pavement
Comp.	Compacted
Conc.	Concrete
Conn.	Connection
Const.	Construct
CPPR	Cold plane pavement removal
CY	Cubic yards
Dia.	Diameter
Dwg.	Drawing
Dwy.	Driveway
E	Exposure (curb)
Elev.	Elevation
Emb.	Embankment fill
E.O.P.	Edge of Pavement
Esm't.	Easement
Exc.	Excavation
Exstg.	Existing
FDC	Full Depth Construction
FL	Flow line
ID	Inside Diameter
Inst.	Install
LED	Light Emitting Diode
LF	Linear feet
Lt. / Rt.	Left / Right
Max.	Maximum
Min.	Minimum
Mod.	Modified
No. / Nos.	Number(s)
Nom.	Nominal
OD	Outside diameter
PC	Point from tangent to circular curve
P.C.	Portland Cement
PCC	Portland Cement Concrete (driveway)
Perf.	Perforated
Perp.	Perpendicular
POC	Point on horizontal curve
POT	Point on tangent
Prop.	Proposed
PSST	Perforated Steel Square Tube
Pvm't.	Pavement
Ref.	Reference
Reqd.	Required
R/W	Right of Way
S / Sl.	Slope
Sched.	Schedule
SF	Square feet
Shldr.	Shoulder
Sht.	Sheet
SSC	Stainless steel clamp
Sta.	Station
Std.	Standard
TCD	Traffic Control Devices
TCM	Traffic Control Measures
TCP	Traffic Control Plan
Thkn.	Thickness
TSS	Temporary sign support
Typ.	Typical



TYPICAL SECTION NOTES:

- Side-slopes are shown as vert. to horiz.
- Street connections, driveways, curb ramps and other unique features are not shown in the typical sections. Where they occur, the feature supercedes the typical section.

STA. "L" 10+72.74 To "L" 11+31.11

ROADWAY TYPICAL SECTION

Scale: No Scale

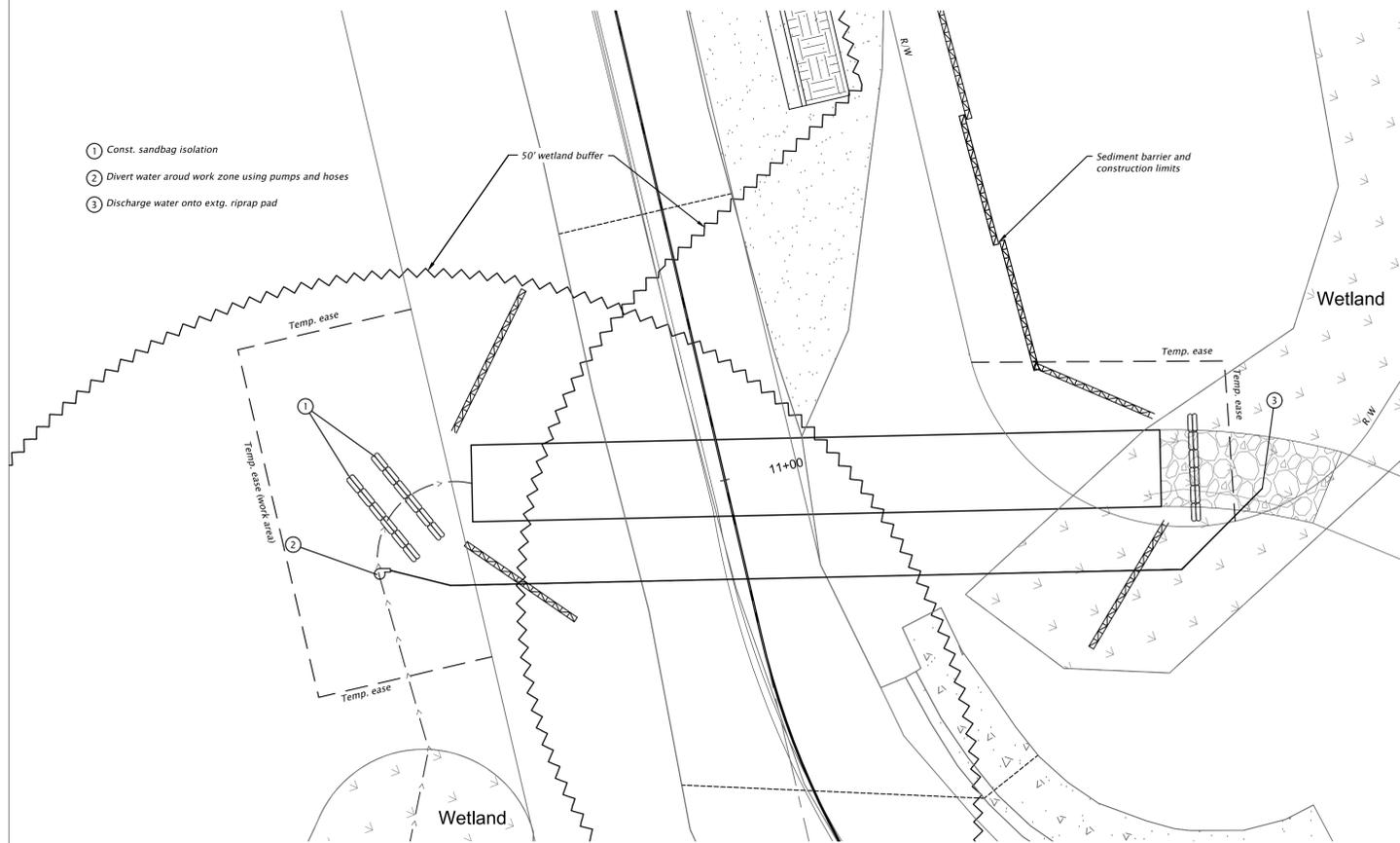


COLUMBIA BOULEVARD
CULVERT
SAINT HELENS, OREGON
COLUMBIA COUNTY

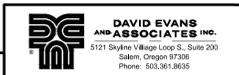
INDEX & TYPICAL SECTION

SHEET NO.
A02

- ① Const. sandbag isolation
- ② Divert water around work zone using pumps and hoses
- ③ Discharge water onto extg. riprap pad



TEMPORARY WATER MANAGEMENT FACILITY DETAIL
SCALE: No Scale

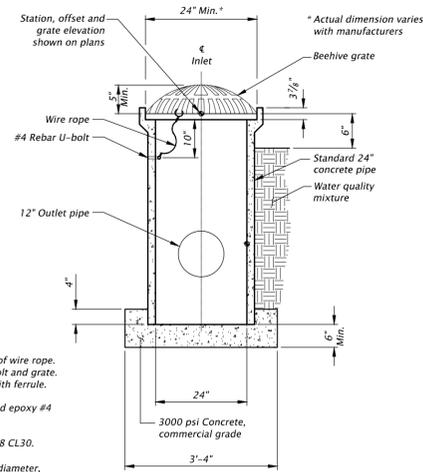


**COLUMBIA BOULEVARD
CULVERT
SAINT HELENS, OREGON
COLUMBIA COUNTY**

Designer: Tai Inamura Reviewer: Ryan Berger
Drafter: Corey Spielman Checker: Paul Tappano

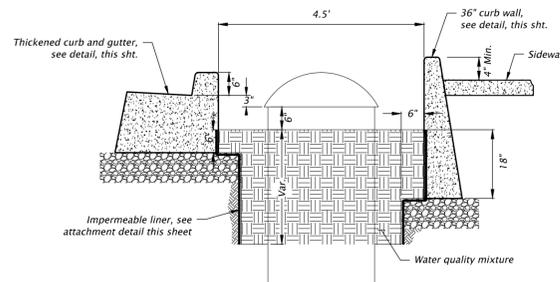
DETAILS

SHEET NO.
BB01

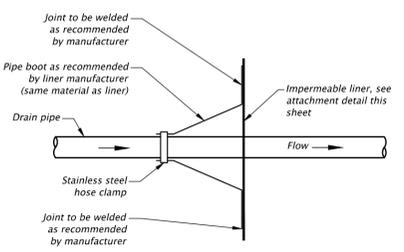


BEEHIVE INLET
Scale: No Scale

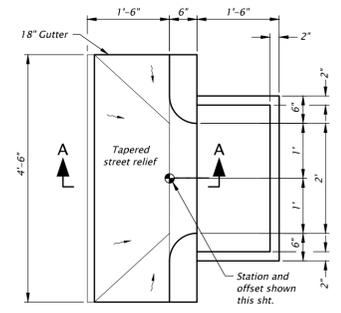
- CONSTRUCTION NOTES:**
1. Secure grate in place with 5/4" wire rope. Loop ends of wire around U-bolt and grate. Crimp each end of wire rope with ferrule.
 2. Drill 2" deep holes into pipe and epoxy #4 rebar U-bolt (2" x 4") in holes.
 3. Grate to be cast iron, ASTM A48 CL30.
 4. Wire rope between 1/8" - 3/16" diameter, stainless steel, 7 strands of 19 wires.



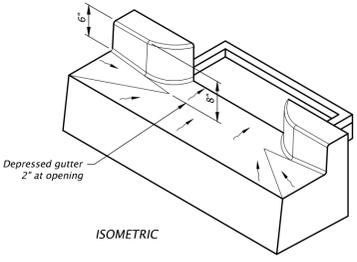
WATER QUALITY SWALE TYPICAL SECTION
Scale: No Scale



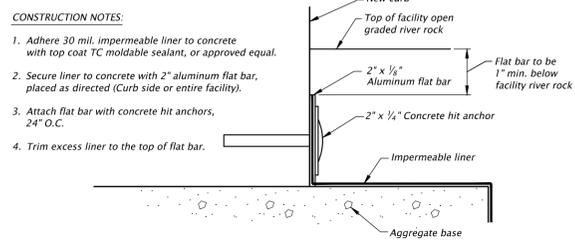
PIPE BOOT FOR IMPERMEABLE LINER
Scale: No Scale



CURB WALL DETAIL
Scale: No Scale

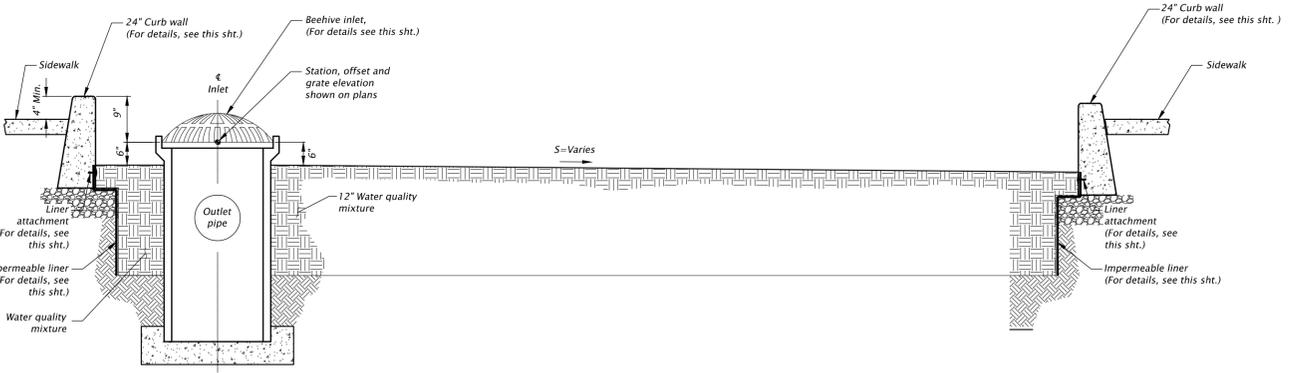


CURB AND GUTTER (MOD.)
Scale: No Scale

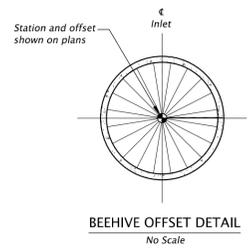


LINER ATTACHMENT
Scale: No Scale

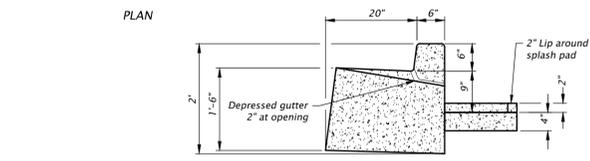
- CONSTRUCTION NOTES:**
1. Adhere 30 mil. impermeable liner to concrete with top coat TC moldable sealant, or approved equal.
 2. Secure liner to concrete with 2" aluminum flat bar, placed as directed (Curb side or entire facility).
 3. Attach flat bar with concrete hit anchors, 24" O.C.
 4. Trim excess liner to the top of flat bar.



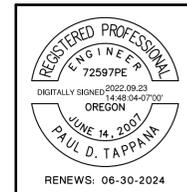
WATER QUALITY SWALE TYPICAL PROFILE
Scale: No Scale



BEEHIVE OFFSET DETAIL
No Scale



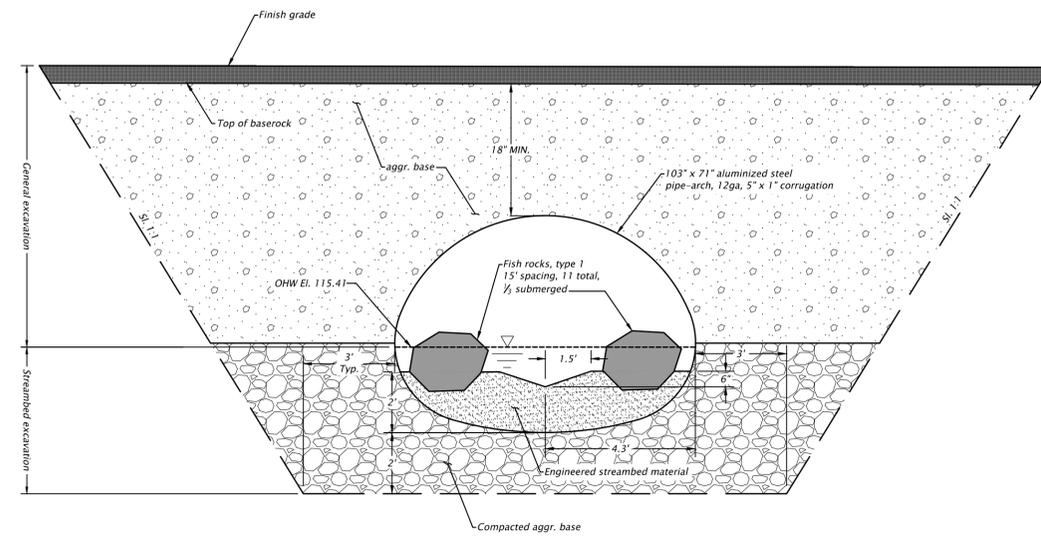
CURB CUT
Scale: No Scale



COLUMBIA BOULEVARD SIDEWALK SAINT HELENS, OREGON COLUMBIA COUNTY	
Designer: Tai Inamura	Reviewer: Ryan Berger
Drafter: Corey Spielman	Checker: Paul Tappano
STORMWATER DETAILS	
SHEET NO.	BB02



PLAN VIEW
Scale: 1" = 10'

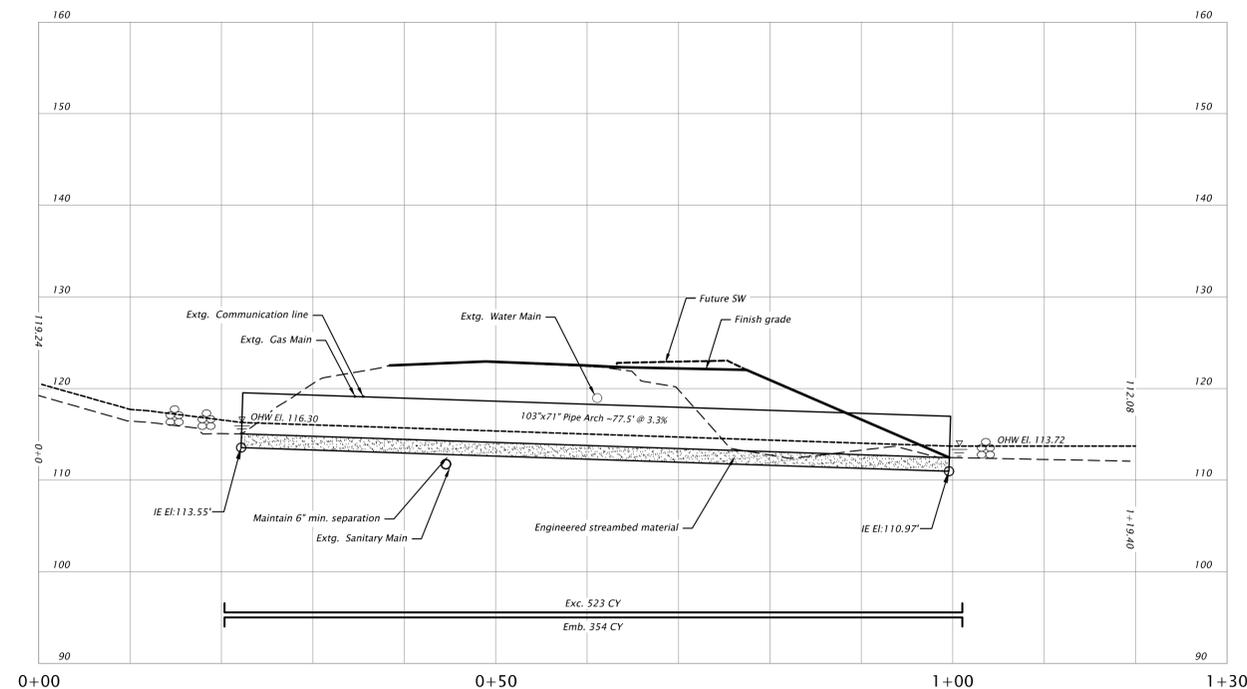


TYPICAL SECTION
Scale: No scale

For Traffic Control, See dwg. nos. TM671, TM681, TM689, TM800, TM820, TM821, TM822 & TM840

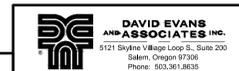
General Construction Notes:

1. Culvert and backfill to be installed with UG utilities in place, unless otherwise directed by the engineer
2. Contractor to temporarily support all UG utility lines during excavation and installation of culvert as required.
3. Contractor to isolate culvert installation work zone from existing creek flow until new culvert construction is completed.
4. Contractor to seed all exposed soil with commercially available seed mix.



PROFILE VIEW
Scale: 1" = 10'

- 1 Const. 103"x71" Pipe Arch - 77.5'
- 2 Const. sediment barrier - 60'
(See dwg. no. RD1030)
- 3 Maintain & protect extg. natural gas main
- 4 Maintain & protect extg. water main
- 5 Maintain & protect extg. sanitary sewer main
- 6 Const. Sandbag stream isolation - 25cy
(Paid as Temp. Water Management Plan)
- 7 Adjust manhole
(See dwg. no. RD360)
- 8 Maintain and protect extg. manhole
- 9 Sta. "L" 10+93 to Sta. "L" 11+11
Remove extg. sanitary sew. pipe below proposed pipe arch
Const. new 12" D.I. sanitary sew. pipe centered on pipe arch



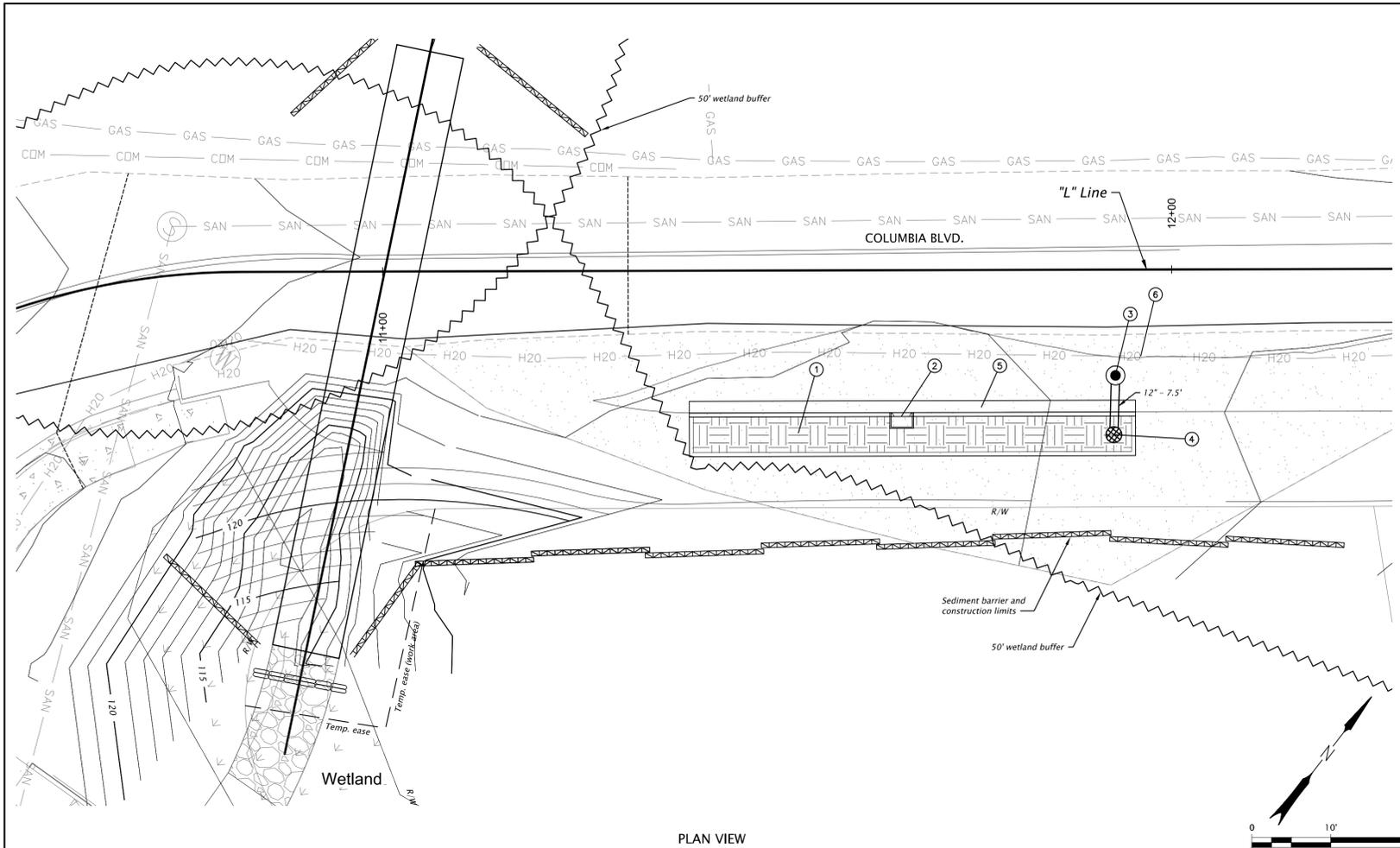
**COLUMBIA BOULEVARD
CULVERT**
SAINT HELENS, OREGON
COLUMBIA COUNTY

Designer: Tai Inamura
Reviewer: Ryan Berger
Draftsman: Corey Spielman
Checker: Paul Tappan

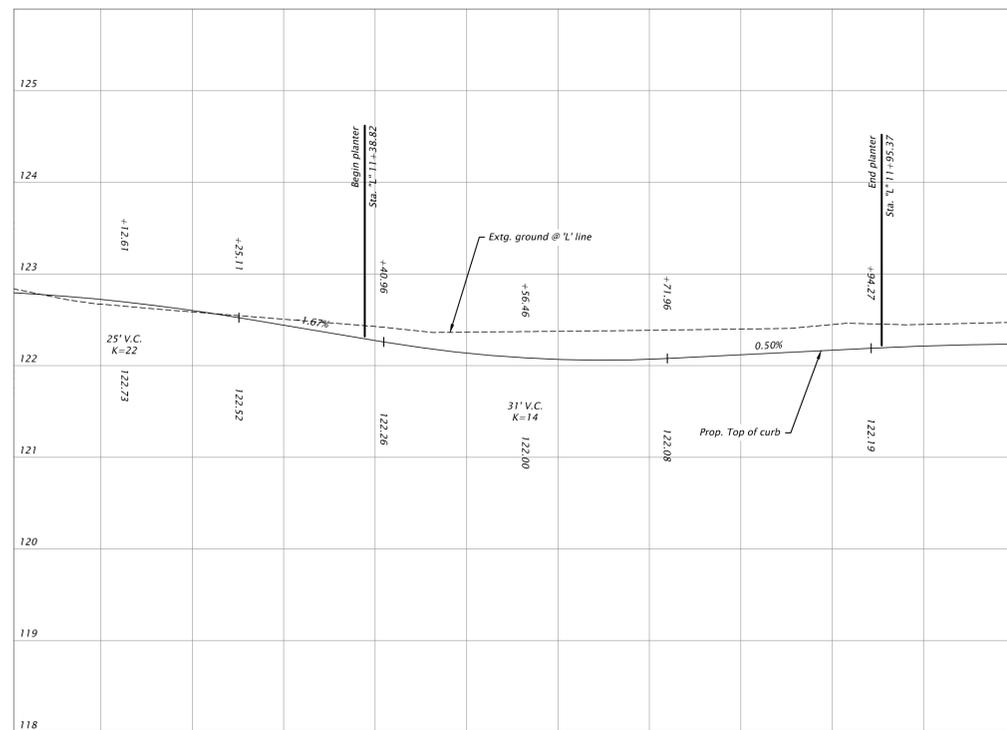
RENEWS: 06-30-2024

CULVERT

SHEET NO.
HA01



PLAN VIEW
Scale: 1" = 10'



PROFILE VIEW
Scale: H: 1" = 10'
V: 1" = 1'

- ① Const. water quality swale #1
Sta. "L" 11+38.82 to Sta. "L" 11+95.37
(For details, see sht. 8802)
- ② Const. curb opening, Sta. 11+65.73
(For details, see sht. 8802)
- ③ Sta. "L" 11+92.84, 13.71' Rt.
Const. manhole 48" dia.
Manhole rim el. = 121.89'
FL in = 117.25' (S 12')
(See dwg. nos. RD335, RD336, RD344, RD345, & RD356)
- ④ Sta. "L" 11+92.84, 20.86' Rt.
Const. beehive overflow
FL out = 117.33' (N 12')
Inst. 12" drain pipe = 7.5', S=1.00%
5' depth
FL (S) = 117.33'
FL (N) = 117.25'
(For details, see sht. 8802)
(See dwg. nos. RD300, RD386 & RD388)
- ⑤ Const. curb & gutter (mod.) - 57'
(For details, see sht. 8802)
- ⑥ Maintain & protect extg. water main

RENEWS: 06-30-2024

DAVID EVANS AND ASSOCIATES, INC.
9121 Skyline Village Loop, S., Suite 200
Salem, Oregon 97306
Phone: 503.361.8635

**COLUMBIA BOULEVARD
CULVERT**
SAINT HELENS, OREGON
COLUMBIA COUNTY

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SHEET NO. HA02

WATER QUALITY SWALE